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Profile

a guide to military careers

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Aviation Electrician's Mates — Page 4

April 1984

to the readers

WELCOME to all guidance counselors and students receiving their first issue of PROFILE. Computer technology made possible adding all America's high schools and colleges to our mailing list. The most current national data available was a 1982 list, so please inform us if your address is incorrect.

We need your **HELP!** Postal regulations require us to maintain a written verification of each addressee to keep our postage rates low. Please complete and return the self-addressed, postage-paid, reply card. Completion of this card will allow you to continue receiving your *free* PROFILE subscription.

We published our Basic Facts edition during January. It contains details about the five services, enlisted and officer career fields, pay tables, rank charts and general information about military service. We have additional copies. If you didn't receive a copy, please write us for one—only one copy per school please.

We'd like to bid farewell to Air Force Master Sgt. Wilt Baker. Wilt was senior editor for four years and responsible for pioneering many of PROFILE's modernization efforts. He leaves PROFILE during May for a three-year tour in Guam. Best wishes, Master Sgt. Baker.

April marks the final issue for the 1983-84 school year. Our November issues promises to be both interesting and informative. Congratulations to all graduating seniors. We hope to serve the rest of you next fall. Have a nice summer!

The Staff

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FLARE

Profile

a guide to military careers April 1984 Vol. 27 No. 6

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About the covers

Front Cover: Aviation electrician's mates test and repair electrical instruments and systems on naval aircraft. Many times the wiring they replace can be found only by using a high powered magnifier. (Photo by Dave Marriott)

Back Cover: Petty Officer 1st Class Rick Ramos seals the end of a lanyard. Knot tying is a Coast Guard boatswain's mate tradition. The story is on pages 12 and 13. (Photo by Tracy L. Tanner)

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by Dave Marriott

Aircraft flown in the early days of naval aviation were relatively simple machines. They had few moving parts aside from the machine guns, flaps and the engine itself. A plane crew consisted of one or two mechanics, both familiar with every aspect of the craft and capable of repairing any malfunctioning part.

Today's aircraft resemble flying computer centers. No longer are one or two mechanics capable of maintaining and repairing all an aircraft's systems. The modern day plane crew includes a team of mechanics and technicians, each specialized on different systems of the high-technology aircraft. The aviation electrician's mate is one of these team members.

Aviation electrician's mates (AE) maintain a wide variety of electrical and navigational equipment, ranging from simple power generators to inertial navigational systems.

"AEs could be compared to construction electricians," said Petty Officer 1st Class Jack Bradley, an aviation electrician's mate stationed at Naval Air Station Oceana, Virginia Beach, Va. "Where a construction electrician maintains and repairs the electrical wiring and systems on a house, an AE does it on an aircraft.

"Because an aircraft's interior wiring is our responsibility, there are very few maintenance jobs where AEs don't actively participate," he continued. "Every time a technician installs or removes a system or component, we have to connect or disconnect its power source."

Navy aviation electrician's mates work at two of three levels of aviation electrical maintenance—organizational and intermediate.

"Organizational maintenance is performed at the squadron level, usually on the flight line or in a hanger," said Petty Officer 1st Class Joel Hutchkiss, an AE at Oceana's Intermediate Maintenance Facility. "All AEs are qualified to perform organizational level maintenance."

"AEs working in this capacity do the 'dirty work'," Hutchkiss continued. "They troubleshoot the aircraft and find the malfunctioning part. Then they remove it and send it to the intermediate facility for repair.

"There are some parts they can repair," he added, "like switch boxes and lighting systems. But most of an aircraft's electrical systems use component parts or modules and have to be forwarded to intermediate maintenance."

At intermediate maintenance facilities, AEs disassemble the instrument and use electrical measuring devices and computers to isolate the broken unit.

"It may sound like working at the intermediate level is easier than working on the flight line," Bradley said, "but it's not. Intermediate work requires more mental than physical work. Once the machines and computers isolate the malfunctioning unit, you still have to physically locate it within the component. To accomplish this takes a complete understanding of schematics interpretation."

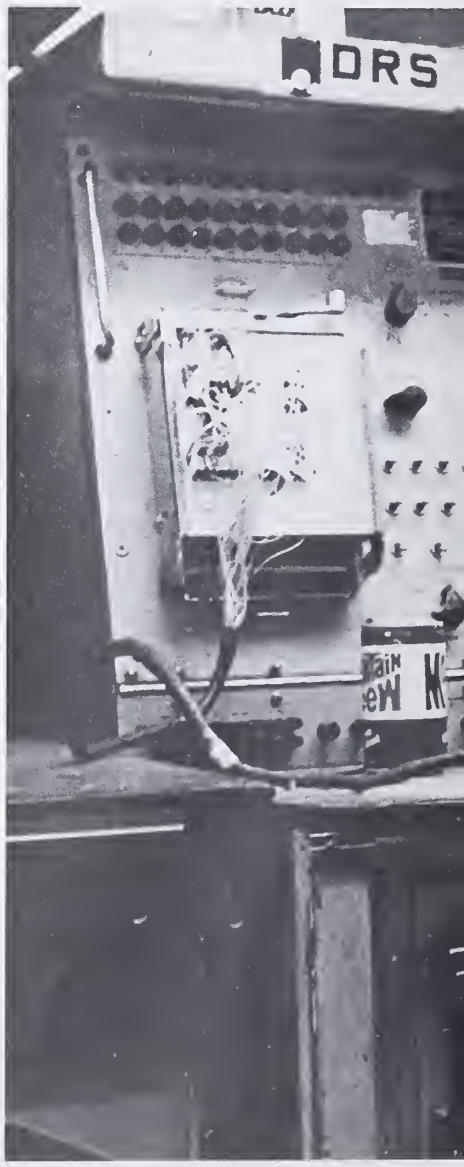
Replacing parts is often a time-consuming and tedious job for intermediate level AEs. Most component and circuit boards they work on are no larger than a post card. To replace or repair these tiny transistors, resistors and potentiometers or rebuild runs (wires connecting circuits on a circuit board) requires a high degree of soldering skill.

"Some of the units these guys solder are smaller than half a finger nail," Hutchkiss said. "The majority of AEs certified to work in intermediate maintenance attend a four-week soldering school. The school teaches them the same techniques used by NASA's space shuttle technicians. Quite often they have to use high-powered magnifiers just to locate the wires they're soldering."

All aviation electrician's mates attend three schools at the Naval Air Technical Training Center in Memphis, Tenn.

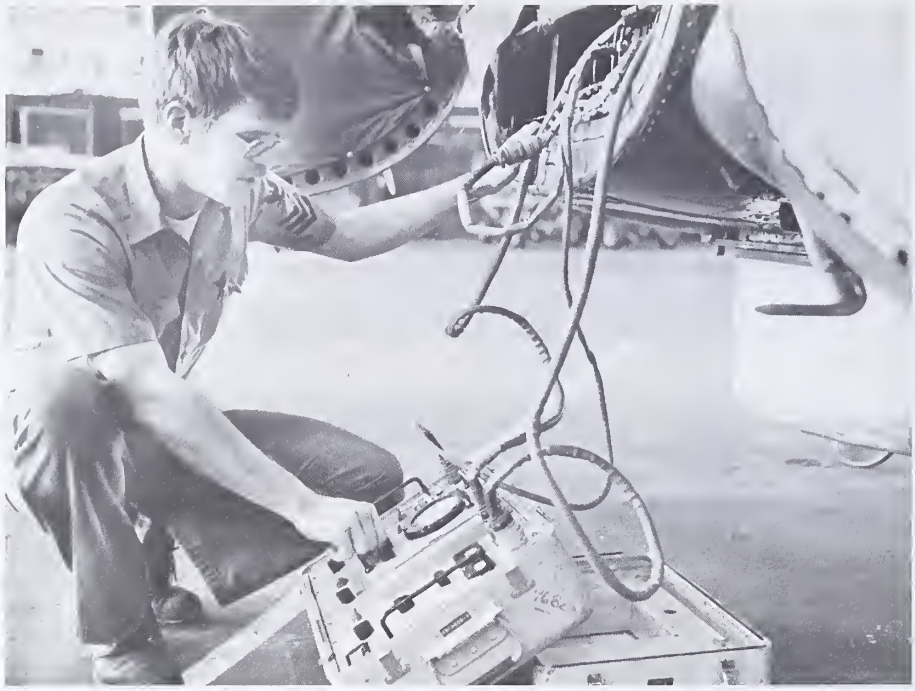
After completing a two-week course on basic aviation theory, AEs go through a nine-week course on basic electricity and electronics.

This second course includes lectures and laboratories on magnetism, field patterns, domain theory and Coulomb's law. They also receive classes on AC generators, AC and DC circuits, voltage dividers, and



An aviation electrician's mate reassembles an instrument after repairing a component. (Photo by Dave Marriott)

ELECTRICITY IS THEIR TRADE



An aviation electrician's mate tests an SH-2F Seasprite helicopter's electrical system. Trouble-shooting aircraft is performed at the squadron level. (Photo by Thomas Butt)

power calculations. The course ends with instruction on basic electronic maintenance, circuit assembly and repair and troubleshooting techniques for simple amplifier power suppliers, transistors, multivibrators and wave shaping circuitry.

The third course is 11-weeks long and teaches students aviation electrical systems and theory. In this course AEs use their newly acquired knowledge and apply it to repairing aircraft electrical systems.

Students are introduced to power generating and distribution systems, electrohydraulic controls, aircraft instrumentation and automatic flight control systems. They also study stabilization systems, aircraft lighting, engine ignition, cabin pressurization and receive instruction on aircraft inspection techniques.

After completion of the three required technical schools, AEs are transferred to a squadron to specialize on a specific aircraft.

"Once an aviation electrician's mate has qualified on an aircraft, it's hard to say where they'll be stationed," Hutchkiss said. "Some are stationed at intermediate level facilities, while others are assigned to aircraft carrier squadrons or squadrons at land bases.

"Just because AEs are qualified on one aircraft doesn't mean their training is complete," Hutchkiss continued. "Many times they'll receive orders to a squadron which flies an aircraft they aren't familiar with. What this means is the AE will be assigned to a training squadron enroute to his new duty station.

"And AEs don't always work in squadrons or intermediate shops," he added. "We have quite a few AEs assigned as flying crewmembers on transport aircraft and helicopters."

Whether working at carrier- or land-based squadrons, intermediate maintenance facilities, or as flying crewmembers, aviation electrician's mates are highly skilled technicians performing a vital mission as members of the Navy's aviation maintenance team.

Many aviation electrician's mates fly as aircraft crewmembers. (Right) An AE pre-flights his aircraft. (Photo by Thomas Butt)

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ATTC

Only 100 percent is good enough

by Tracy L. Tanner

Nestled quietly among the pines and plains of northeastern North Carolina is the sleepy town of Elizabeth City. This small, rural town, swept by gentle breezes is the home of the Coast Guard's largest air station. Since 1978, the air station has been the site of the Aviation Technical Training Command (ATTC).

Approximately 200 Coast Guard members receive their aviation rating at the training command each year. The command offers the basic and advanced training of Aviation Structural Mechanics, Aviation Electrician's Mates, Aviation Electronics Technicians, Aviation Machinist's Mates and Aviation Survivalmen.

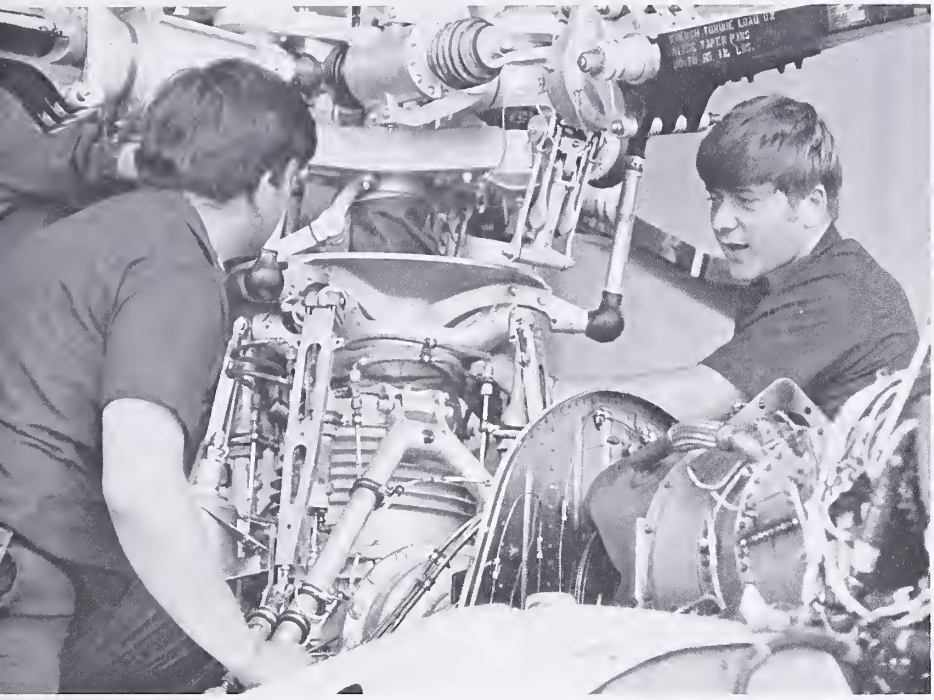
Before 1978, the Navy conducted the Coast Guard's aviation field training. Cmdr. Terry Beacham, commanding officer of the ATTC, explained that at one time, the aircraft used by the Coast Guard were the same as used by the other services. As the Coast Guard's noncombat role became more defined, aircraft designed for these missions became available. Thus, the training which Coast Guardsmen received through Navy schools was no longer effective.

"Coast Guardsmen would return to the field and need to be trained on our own equipment," Beacham said. "They had learned the basics, but had no special knowledge on the aircraft to which they would be assigned."

Today, aviation technicians receive extensive training at the ATTC, and return to the field with the required knowledge to complete their missions.

The aviation structural

Crewmen work on an HH-52A just outside the hanger at the Cape Cod Air Station. (Photo by Petty Officer 1st Class Al Faust)



Maintenance of helicopters is a never ending job. Two aviation structural mechanics work on the rotor system of an HH-52 helicopter.
(Photo by Chief Warrant Officer Dale Puckett)

mechanic attends 18 weeks of training in basic aerodynamics, welding, fabrication of sheet metal and operation of basic machine shop equipment. At the completion of this training the structural mechanic knows how to maintain and repair all aircraft surfaces.

Keeping the maze of electrical mechanisms and systems in Coast Guard aircraft working properly is the aviation electrician's mate's job. After attending 19 weeks of classroom training, the electrician's mate will know basic electrical theory, wiring systems, generator and motor theory, power circuits, direct and alternating current machinery, and basic electronics.

Responsibility for the operational condition of an aircraft's communications, radar and navigational equipment falls on the shoulders of the aviation electronics technicians. Although the electronics technicians' responsibility doesn't entail keeping the aircraft in the air, pilots would surely vouch for the fact that without this important rating, flying would be extremely difficult.

The aviation survivalman, like the electronics technician, is not held responsible for smooth flying. Their skills come into play when some part of the aircraft fails. They maintain, rig, and repair all types of parachutes. Their abilities in servicing and maintaining oxygen-breathing equipment, droppable pumps and other equipment also plays a vital role in the Coast Guard's search and rescue mission.

The aviation machinist's mate has the hands of an expert and knows aircraft engines inside out. The major responsibility of the machinist's mate is the maintenance and repair of aircraft. Because members of this rate are the most familiar with the airframe, the power plant and drive train, they usually act as plane captain during flight.

Beacham points out that the school is fairly progressive in its instructional methods. "We constantly seek better methods to reduce training time while getting the same amount of information out to the student," he explained.

Charles Swaringen, the educational advisor for the school, explained that the instructors now use the Criterion Reference Instruction method. "At the beginning of instruction, the instructors identify exactly what is expected of the students. Instruction in that area is then covered, and they are tested," said Swaringen. "We don't use multiple choice type tests, or ask trivia questions. The student knows exactly what is expected and can concentrate on learning just that."

Swaringen is convinced that the Criterion Reference Instruction is the most efficient teaching method for the aviation ratings. "Since we have implemented this method, our attrition rate has probably decreased by five percent," he said.

At the ATTC, learning enough to pass with a 50 or 75 percent average is not enough. The students must meet all of the instructional objectives. In other words, each must be able to do the work to a 100 percent standard.

Competition among the aviation ratings is evident throughout the school. While the electrician's mates may claim an aircraft could still fly without the survivalmen, pilots and crewmembers alike will thank the survivalman if a mishap should happen.

One thing that remains the same throughout the five ratings is the fact that they must be the best. They must be able to perform their job 100 percent. There is no room for flaws in the aviation field. Lives depend on this strictly enforced rule of the Aviation Technical Training Command.

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MARINE OPTIC SHOPS

Eyeglasses aren't their specialty

story and photo by Dave Marriott

"The job is not what its name implies," said Master Sgt. Patrick Derengowski, non-commissioned officer-in-charge of the optic shop on Marine Corps Base, Camp Lejeune, N.C. "When I tell people I work in the optic shop, most get the impression that I work with eyeglasses."

Derengowski and his men, all optical instrument repairers, do work with lenses, but they aren't the type people wear framed on their faces.

"We repair and maintain fire control systems," Derengowski said. "These systems could include anything from simple observation binoculars to the complex sighting mechanisms in tanks.

"My shop supports the entire 2nd Marine Division," he continued. "If we had one of each type fire control systems we maintain, we would have more than 100 different instruments."

In addition to repairing and maintaining fire control systems, optical instrument repairers also make minor repairs and adjustments to engineering optical equipment.

"When a unit sends us a broken piece of equipment, the first thing we do is take the instrument apart and determine which part is causing the malfunction," said Derengowski. "On instruments like periscopes, this is a fairly simple task. But, on some of the more advanced systems, the circuits inside are so small and fragile that even touching them with your hand could break them.

"Once we find the malfunction, we repair it," he continued. "On some equipment it could be as easy as replacing a broken lens. On others it could include replacing circuit boards, resistors, transmitters or amplifiers. It all depends on what type of system is being repaired."

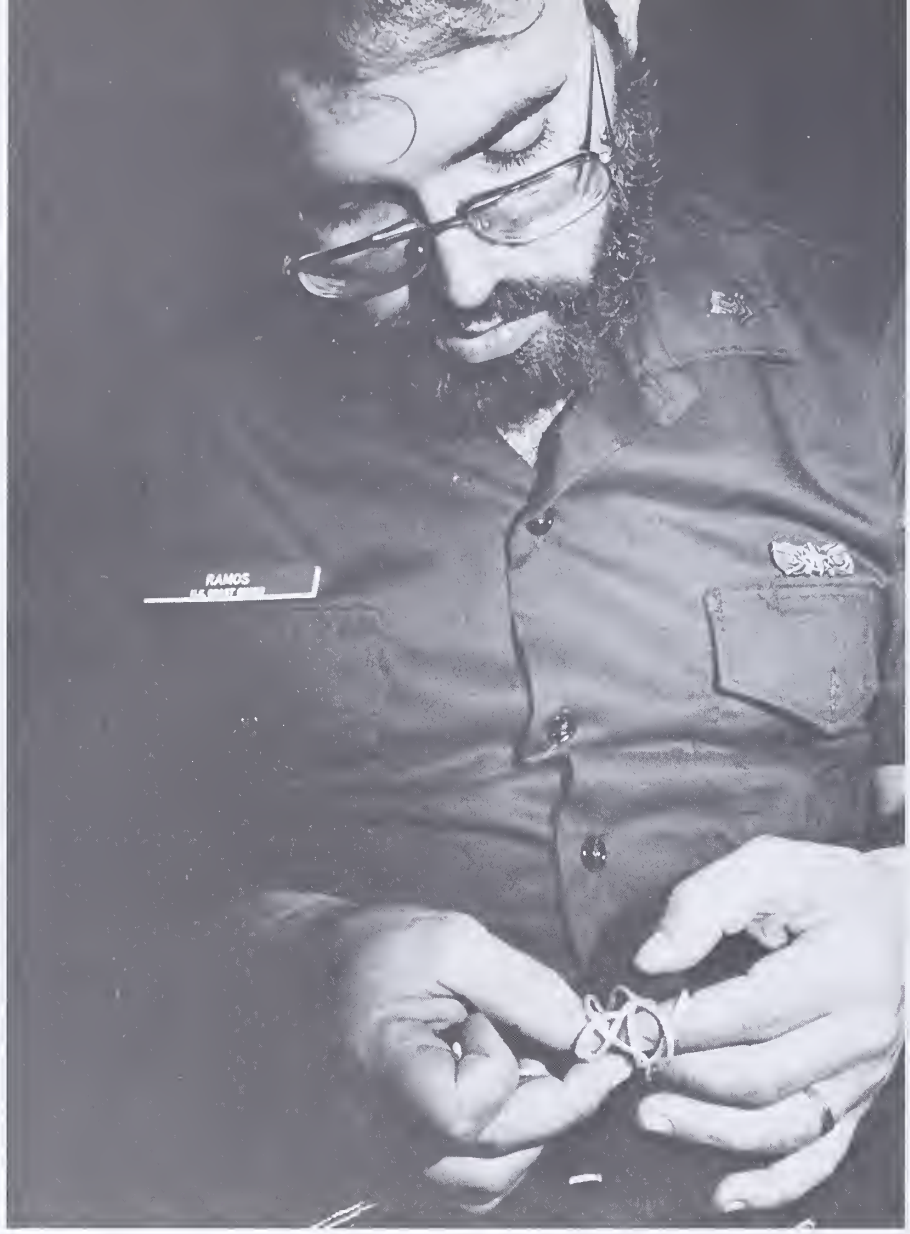
Optical instrument repairers learn their trade by attending a 15-week school at the U. S. Army Proving Grounds in Aberdeen, Maryland.

The school curriculum is split between classroom study and hands-on application. In the classroom, students study the fundamentals of optics, basic electricity, mechanical mechanisms and artillery terms. Then they attend hands-on training where they learn to disassemble, reassemble, inspect and adjust mounts and quadrants, telescopes, aiming circles, binoculars, periscopes and a variety of fire control systems used on combat vehicles.

"The job is more difficult than it sounds," Derengowski said. "Repairing modern optical fire control systems requires more than grinding lenses, polishing glass and tightening screws.

"Most of the systems we repair are sights used on artillery pieces and combat vehicles," he continued. "Because of this, any repair work we do must be perfect. If the calibrations on the sights we repair aren't exact, an artillery or tank round could land on our own troops.

"And none of us would want that on our conscience," he concluded.



TRADITION

story and photos by Tracy L. Tanner

Dating back to the days of sail, ropes have been used not only as hoists, but also as a means of adorning a ship. Rails were wrapped with rope to form a firm grip and intricate knots were added as a fancy touch.

Knot tying is a traditional art of the Coast Guard boatswain's mates. As with many traditions, the art of knot tying has taken a back seat to more job related goals. There isn't time to teach a young "Coastie" the intricate knots during the basic boatswain's school, and often, once this jack-of-all-trades begins work as a boatswain's mate, time is too scarce.

Petty Officer 1st Class Rick Ramos, a former boatswain's mate instructor at the Reserve Training Center in Yorktown, Va., mastered the art by hounding the "old salts" for knowledge and then, practicing.

Today, Ramos is one of the "old salts." And, his abilities at knot tying do not go unnoticed. During his tour as an instructor, he passed the art to his students whenever time allowed.

In turn, his students will pass their new found knowledge to others, keeping the tradition alive.

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It cannot be inherited, and if you want it
you must obtain it by great labor.
T. S. Eliot

A Special Forces demolitions expert detonates an explosive from a safe distance. The Green Beret demo man is versed in many types of explosive devices, firing systems and land mine warfare.

Special Forces

by Debi Koenig

The ultimate Army experience awaits those who accept the Special Forces challenge of "we dare you to dare."

It takes a special breed of man to become a "triple volunteer" and earn the privilege of wearing the green beret. He is trained to be a paratrooper, a fighter and a teacher rolled into one physically fit, mentally mature soldier.

Acceptance into the Special Forces Qualification Course requires an enlisted man to complete basic training, qualify in a military occupational specialty, complete airborne training, pass a rigorous physical fitness test and be able to swim 50 meters in fatigues and boots.

After acceptance into the course, the volunteer faces three phases of intensive, demanding training that will last anywhere from 17 to 33 weeks.

Phase I represents a grueling four weeks of instruction in basic special forces skills determining a soldier's eligibility to advance to the next two phases. These first weeks will push the volunteer to his physical and emotional limits. He will learn to rely upon, trust and know himself. He will be treated to daily doses of hand-to-hand combat, full rucksack marches, rappelling, survival techniques, physical conditioning, small unit tactics, refresher parachute training, land navigation and basic field craft.

Lessons learned during this intense first phase are tested during a field training exercise in the dense woods of the Uwharrie National Forest in North Carolina. Each man's stamina, self confidence, retention of information and ability to follow instructions will be the key to his successfully completing this phase.

Capt. Jim Coffman, a recent graduate, refers to Phase I as the "trial by fire" phase. "The first phase is simply basic skills all qualifiers should have, but still, some men don't make it through," he explained. "Many of the men are not mentally prepared to go the distance. They just don't have what it takes to be a Green Beret."

During Phase II, the soldiers receive highly specialized instruction in one of four select fields; communications, weapons, medical aid or demolitions.

The communication course is an eight week school conducted at Fort Bragg, N. C. Instruction in International Morse Code, cryptographic systems, Special Forces communications and antennas are covered during the five week academic session.

The next three weeks, the performance phase, is conducted in the remote mountainous regions of Psgah National Forest, N. C. The students are required to demonstrate their ability to perform around the clock, and secure long range

communications in a tactical setting.

A soldier choosing the light and heavy weapons field will attend an intensive eight week course, also at Fort Bragg. He will become familiar with more than 80 different weapons, including many foreign made models.

The weapons expert must be able to train local national forces in the use of small arms, light and heavy weapons and infantry tactics, both foreign and domestic, obsolete and modern. He must become versed in guerilla and counter-guerilla warfare, know the fundamentals of land mine warfare, and read maps and aerial photographs. His test will be an 11-day field training exercise. After training, the soldier should be able to pick up virtually any weapon from any battlefield and use it effectively.

A demanding eight weeks faces those choosing demolitions as their specialty. The demolitions expert will acquire the ability to evaluate, classify and destroy enemy structures and assist an allied force with reconstruction. He will undergo extensive training in land mine warfare, explosives, firing systems and advanced destructive techniques at Fort Bragg. His training culminates in a five day field training exercise.

The Special Forces medic is a uniquely qualified soldier. He undergoes one of the longest, most intensive courses in the Army. His 25 weeks of training as a physicians' substitute begin at Fort Sam Houston, Texas, where he completes 13 weeks of concentrated medical training. Subsequently, the students are attached for six weeks to a number of Army hospitals for on-the-job training under the guidance of the hospital staff.

Once the soldiers complete the specialized training received during the second phase, they qualify for the capstone of the course. Phase III brings together students from each of the four select fields and groups them into teams. They attend four weeks of classroom training in unconventional warfare doctrine and techniques.

Then, they face the final test, a field training exercise. The students must call upon all knowledge gained during prior training to make it through Phase III. A simulated unconventional warfare operational area must be infiltrated at night by parachute. Contact must be established with ground resistance forces. The students must train these "guerillas" in the use of unconventional warfare against the enemy.

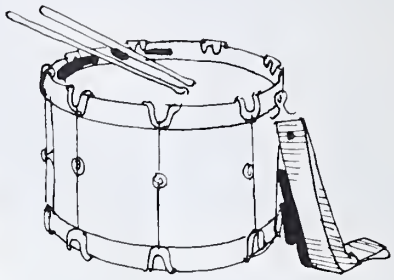
This is their final graded exercise.

After weeks of blood, sweat and for some—tears, the soldier has earned the right to wear the green beret with full identifying flash. He has become one of the best trained fighting men in the world, dedicated to the Special Forces motto, "De Oppresso Liber" (to free the oppressed).

He dared to dare.

(Above) Special Forces students descend a 60-foot rope during helicopter training. (Photo by Ron Staszcuk)
(Left) A Special Forces communications expert relays a message in Morse Code over a field radio. The Green Beret specialist must be able to set up and operate a secure, long range communications network in any environment.

MUSICIANS IN THE MAKING



story and photos by Dave Marriott

Building 3602 on Little Creek Naval Amphibious Base, Norfolk, Va. resembles tens-of-thousands of buildings on military bases throughout the country. The drab grey, three-storied structure has no distinguishing features. No distinguishing features, that is, until one enters its passageways.

Its hallways lack the insistent pounding of typewriters and the constant subdued conversation that characterize many military commands. Immediately upon entering the building, woodwind melodies, blaring brass horns, and the piercing staccato of percussion instruments bombard the ears. If one possesses a keen musical sense, they may identify strands of rhapsody, jazz or popular music drifting through the corridors.

This combination of multiple instruments playing a diversity of musical arrangements gives the impression of many raucous Bourbon Street musicians trying desperately to drown out one another. In reality, it's hundreds of military men and women studying at the Navy's School of Music.

The Navy's School of Music is the only formal school for military musicians. "We are an unique organization, one of a kind," said Lt. Cmdr. John R. Bledsoe, executive officer of the school. "The school is run by the Navy. But, we also have Marine Corps and Army personnel assigned, both as students and instructors. The Air Force and Coast Guard do not participate in our program, and to my knowledge, have no equivalent training."

The curriculum includes three courses varying in length from 23 to 40 weeks. Each is targeted at students on different levels of musical proficiency and military responsibility.

The majority of the school's population attends the Basic Music Class. The basic class, comprised mainly of recent graduates of recruit training, concentrates on improving previously established musical instrument skills.

"We don't have students that walk in off the streets and tell recruiters they want to be military

(Left) A soldier repairs a French Horn in the School of Music's instrument repair shop.

musicians," said Chief Petty Officer Mike Sciarini, a bassoon instructor. "Enlistment criteria varies between the services, however, each student must pass an audition before being accepted for the school. To pass the audition, students must have a sound knowledge of their major scales and some knowledge of their minor scales.

"Men and women possessing a strong musical background throughout junior and senior high school should have little problem passing the audition," he added.

Students reporting for the basic course should expect 23 hectic weeks of classes emphasizing the mechanics of playing their instrument. Instructors intermix classes on music theory and harmony, ear training and sight reading with instrument proficiency. Students gain instrument proficiency while participating as members of student concert, dance and marching bands.

Throughout the course, instructors encourage students proficient on one instrument to study an additional instrument. In some cases, such as Marine Corps and Navy string instrumentalists and pianists, study on a second instrument is mandatory.

Staff members stress individual instruction and practice. Each musician receives a minimum of one hour of private instruction for every instrument played each week. As for individual practice, you can never get enough is the instructors' attitude.

"We require the students to practice a minimum of 10 hours each week on their own," Sciarini said. "I've had students practice 20 hours during weeknights and several hours on weekends. Instructors remain in the building until 10 p.m. on weeknights, all day Saturday, and from noon until 6 p.m. on Sundays to give students any assistance they need."

The school has all the necessary facilities to train hundreds of musicians at one time. Within the 70,000 square foot structure are three concert band rehearsal halls, four 17-piece band rehearsal halls, and 100 individual instruction/practice rooms.

The school also houses a research library, a music library with enough sheet music to outfit thousands of musicians, a storage room containing more than 4,000 instruments, and an instrument repair shop.

Advance Classes

Military musicians with four or more years in service and a proven competency in a field band are eligible to attend the advance courses.

Students attending the Intermediate Music Class hold the grade of E-5, E-6, or E-7. During the 24-week course they receive refresher and advance training in performance of intermediate and advance concert and dance band music. They also receive instruction on instrumentation and arranging, music theory and harmony, ear training, sectional rehearsals and drum majoring.

The most advanced course, the Assistant Band-

A sailor plays the Kettle Drums while practicing in a student concert band. Students also participate in dance and marching bands.

leaders Class, is 40 weeks long and designed primarily for the top two enlisted pay grades. Before beginning the class, each candidate must pass a series of auditions and a written examination.

The course includes training on harmony, ear training, conducting, instrumentation, drum majoring, and ensemble and concert band arranging. Because students are usually band officers or assistant band officers, the course places heavy emphasis on band administration and management.

A musician attending the three courses throughout the span of a military career would find it possible to convert their military training into 60 semester hours of undergraduate study.

"The school teaches a comprehensive, music education program," said Sciarini. "To successfully accomplish this takes a staff of dedicated instructors.

"All of our instructors are experienced musicians," he continued. "They have to be. They're the ones responsible for ensuring soldiers, sailors and Marines possess the knowledge, proficiency, professionalism and pomp that characterizes today's military musician."

Building 3602 on Little Creek Naval Amphibious Base, Norfolk, Va. resembles tens-of-thousands of buildings on military bases throughout the country. The drab grey, three-storied structure has no distinguishing features. No distinguishing features, that is, until one enters its passageways.

An Emergency Services Team (EST) rappels on a wall during training. EST is the Air Force's equivilant of civilian police agencies' SWAT squads. (Air Force photo)

WHEN

by 2nd Lt.
Margaret L. Comstock

The moment seems electrically charged as the four men anxiously await a "go" signal. The word arrives: Negotiations with the "terrorist" inside the parked aircraft have failed. Now the four men must capture-or-kill the terrorist.

Fire trucks slowly surround the darkened C-130 Hercules aircraft, diverting the terrorist's attention as the men move into position.

The men crawl through the runway edge's thick grass, creeping closer to the C-130. Reaching the aircraft, they hug the ground waiting for the signal to fan out. Hand signals given; the men spread out.

From a distance, the scene has the impact of today's headlines shouting about terrorist attacks. For the four Yokota Air Base, Japan, Emergency Services Team (EST) members this is training—maybe the most serious they'll ever undergo.

The team cautiously inches toward the aircraft's open door. At a nod from their leader, they slip on their gas masks. They move next to the C-130.

"Papa Hotel! Papa Hotel!" The "go" signal.

Two men dash toward the aircraft's open door. Tossing tear gas canisters inside, they rush through the thick vapor. Suddenly . . . two men appear in the doorway dragging a third man between them. Another EST squad appears and hustles the terrorist away.

The Emergency Services Team at Yokota is an elite security police unit. Three, four-member squads, all volunteers from the 415th Security Police Squadron, comprise the base's team. Their

EST IS BEST

specialty is dealing with high-risk operations like that presented in the C-130 exercise.

EST is the Air Force's version of a civilian police department's special weapons and tactics (SWAT) team. Each Air Force base has a team designed to handle critical situations requiring special skills.

The team's concept is based on the premise that a small tactical team of well trained and physically superior police officers are more effective than a large group without such training.

Requirements for joining EST are high. Before being accepted for training, each applicant is briefed on the stress and danger inherent to the job.

First Lt. James R. Doyle, officer-in-charge of the Yokota EST, said "We talk with the volunteers to determine the reasons they want to become EST members. We explain some of the sacrifices that may be necessary during both routine and emergency operations.

"For example," he continued, "because the EST is used during high-risk situations, team members stand a chance of being injured or even killed. There is also the chance they will be injuring or killing someone."

Qualifying physically pushes many of the volunteers to their physical limits. Strenuous exercises, such as push-ups, pull-ups, and sit-ups, must be performed. Applicants must be able to run a mile in 7 minutes, 30 seconds and run up four flights of stairs in one minute. These may seem like modest requirements, but each member must be wearing their special purpose equipment.

Instructors hope to add weight-lifting to the program and some day require all EST members to bench press their own weight. According to Staff Sgt. Daniel C. Yasechko, the added strength has special application in situations where one team member might have to carry an injured comrade.

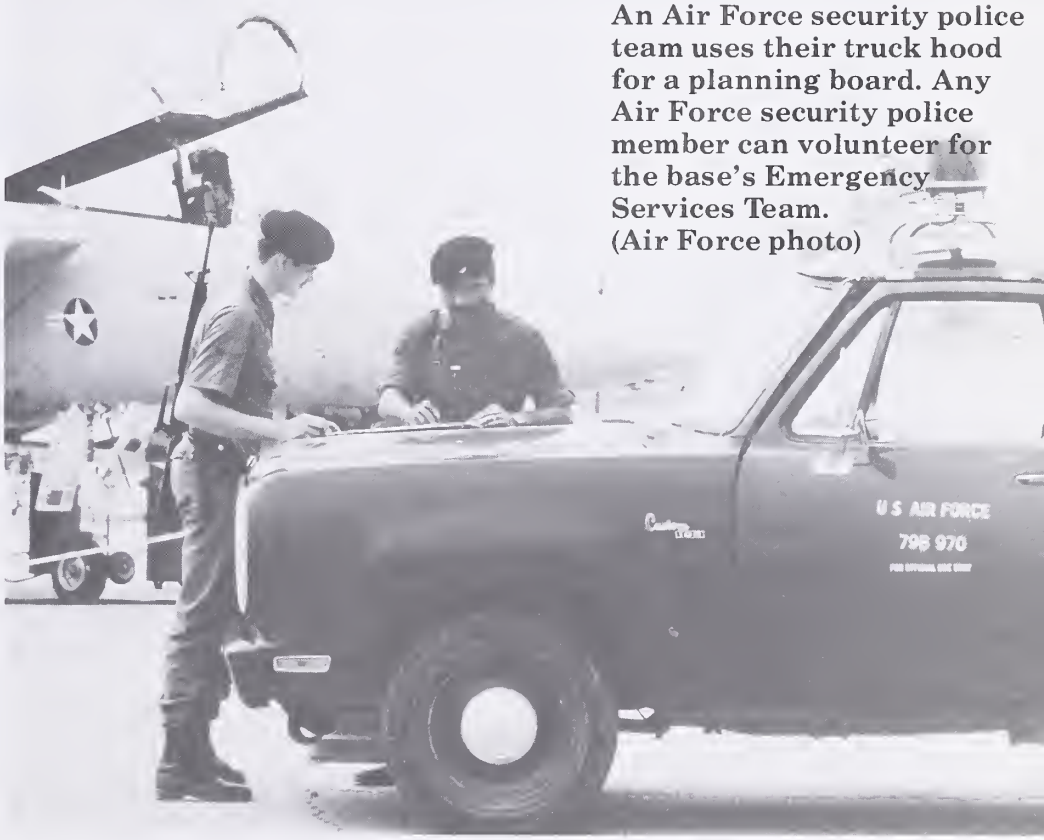
Once an applicant is accepted and physically qualified, he or she is assigned to a position on the squad. The basic EST squad includes a team leader, pointman, marksman and defensive person.

"The team leader guides the team and makes the decision when to perform a maneuver or assault an object," Doyle said. "The pointman or scout is the first to enter a facility or area and check it out. The marksman selects the types of arms or force to be used, and if needed, shoots the tear gas. The defense member covers the team's rear."

During an actual confrontation, Doyle, along with the wing commander and security police chief, work together hoping for a peaceful solution to any problem. "I also advise the wing commander of the team's capability—what it can and can't do in a given situation. I have to know its capabilities and where each member is at all times."

Negotiation is the primary avenue to resolve any crisis, but if that fails, the EST is sent into action.

Then the cry "Papa Hotel" would have special meaning. The best—EST—is ready, able, and on the move.



An Air Force security police team uses their truck hood for a planning board. Any Air Force security police member can volunteer for the base's Emergency Services Team. (Air Force photo)

assignment

TURKEY

NATO's southern most member sits at the crossroads of three civilizations

by Capt. Katie Cutler, USAF

Turkey—the country, not the bird—is a land of exquisite contrast. It's a paradox of culture, people, language and lifestyles between east and west.

At dozens of locations across Turkey, more than 4,800 American servicemen and women are working alongside Turkish military members, helping to cement the relationship between the two NATO partners. That relationship is more significant today than at any time since Turkey became a member of the alliance in 1952.

After looking at a map, it's obvious that NATO's southern region is by far the largest area in Allied Command Europe, covering almost half a million square miles. Its geographical position is at the crossroads of the Mediterranean, Mideastern, and European civilizations. Turkey is within range of the Middle East's oil fields, the Persian Gulf and the Soviet Union.

Incirlik is the center of military operations in Turkey. It is also the hub of the Military Airlift Command's (MAC) flights. The flights bring supplies, food, and mail to American personnel.

The airlift operations include the "Turkey Trot," C-130s from Mildenhall Air Base in England. The Turkey Trot serves the nine major American military sites with three weekly flights and boosts morale tremendously. It offers men and women assigned to Turkey a chance to see Europe at little or no transportation cost. Each military person and their family members are allowed two leave flights per year. These flights can be used to fly to Spain, Greece and Germany. An added benefit is that family members over 17 can travel without their sponsors.

Off duty time can also be spent exploring the archaeological sites that place the country's roots somewhere around the 22nd century B.C. Too, it could mean absorbing the inspiration of religious shrines that renew the interest of many in the Bible. The taproots of Christianity are in Turkey, for it's the Asia Minor of biblical times. The Seven Churches Tour is a favorite of military people and is often sponsored by the base chapels.

"I had the totally wrong impression when I came

over here," said Airman Joe Christensen, assigned Eskisehir. "I thought all I'd find was camels and sand." But even on the semiarid Central Anatolian Plateau about 200 miles west of Ankara where Askisehir is located, Christensen found life far more modern than he had expected.

In show windows downtown, appliances—washers, dryers, hot water heaters and such—gleamed as they would in a department store. And modern bathroom fixtures on display there belied the reality that the public restrooms down the street might have only holes in porcelain plates.

Turkey is truly a land of contrasts. Outside the city in the small villages, Christensen found village women with faces barely showing from within white gauze headwraps, scrubbing their laundry in the clear spring water.

Because of its religious ties with neighboring Middle Eastern countries, many Americans expect the Turks to speak and write Arabic. Not so. Their language is Turkish.

Although it's a language without ties to Germanic or Romance languages, it is not difficult to learn. In fact it may be easier to master than many foreign languages. And the opportunities to learn are plentiful.

Living in Turkey can be advantageous. There's the luxury of families spending time together without much television. They travel together and read more. The cost of living and inflation of the Turkish lira are profitable for Americans. Gold is cheaper and the gold chains are done by hand. Meerschaum pipes can be purchased for about one fourth of the normal export price.

Turkey means many things to the men and women on duty there. It means sifting the sands of the Mediterranean and Aegean beaches or sampling a new cuisine—lamb kebaps of many names and many seasonings, eggplant and yogurt, or pistachios and pumpkin seeds bought in paper cones from streetcorner vendors.

Most of all it means talking, all the while drinking the strong tea the Turks call cay (pronounced chy), with people with names like Ali and Nur and Ozen and Turkan. For it is the warm, open, and proud people themselves who, more than any tourist site, win over the Americans assigned to Turkey.

At remote sites like Eskisehir and Elmadag, Americans mix in harmony with nearby villagers, visiting the hamam (Turkish bath), gathering for a barbecue, or going on a boar hunt.

Turkey is a tourist holiday blending their old ways with a modern country. Turkey—an assignment never to be forgotten by the men and women of the American Armed Forces.

COLD WEATHER T

by Sgt. Todd Wagstaff, USMC

One of those "certain somethings" that distinguish leathernecks from their brothers and sisters in other branches of the armed forces is the intensity of their training.

People have described Marine Corps training as tough, rugged, even relentless.

The instructors at the Marine Corps' Mountain Training Center (MWTC), Bridgeport, Calif., help build this reputation. They conduct year-round cold weather and mountain warfare training for Marine combat units.

Located high in the Sierras, surrounded by rocky peaks, ice and stately ponderosa trees, the training center has been described as being in the center of "God's Country."

"This might be God's Country," said Chief Warrant Officer Thomas Kelly, a U. S. Army helicopter pilot temporarily assigned to the center, "but I don't think I'd enjoy humping those 90-pound packs up these icy trails like the Marine grunts. I was in the Corps with 1st Recon in Vietnam. I thought we had it rough then, but at least it was warm."

Even the British Royal Marines look at this training as tough. "Good training has got to be as tough as possible. It must be realistic. That you have here," said Colors Sgt. Mac McLean, British Royal Marines. "Here you have an enemy that must be defeated before you can consider yourself the victor and 'well trained' in winter warfare. That enemy is the winter elements, and they challenge troops 24 hours a day."

The Mountain Training Center sits in the Pickle Meadows region of the Sierras in the Toiyable National Forest. The base camp is located at 6,500 feet above sea level, but most training is conducted between the 9,000 and 12,000 foot levels. During the winter months, the snow accumulates to more than 20 feet and the temperature drops to minus 20 degrees. Even on clear days, violent winter storms

RAINING

form within a few hours.

"Cold weather training is part of our NATO commitment," said Col. W. H. Osgood, commanding officer of the center. "All great military defeats seem to take place during winter. History tells us the reasons are poor preparation and poor supply of items required to keep men and machines moving in cold weather.

"Marines come here to master the skills of mountain and winter warfare, to assure that they are prepared and trained to do battle in cold and mountainous conditions."

Osgood continued to say that cold weather can isolate even the fittest of Marines. "The stress of extremely cold weather can cause an individual to turn his focus from the welfare of his unit to himself. When this happens unit integrity breaks down and the battle is lost," he added.

Cold weather training is the closest thing to combat the Marines have. The weather causes both casualties and unit breakdowns. Nothing is simulated, the breakdowns are for real. Because of this, leaders are reminded to pay strict attention to the "little things."

"In Vietnam," Osgood said, "if you lost a glove or shirt it made little difference. Here, if you lost a glove you could easily lose a couple fingers or an entire hand. Lose a wool shirt and it could mean your life."

Cold weather survival is the first class Marines receive. They are told to drink six to eight canteens of water daily to prevent dehydration, a major problem in cold weather fighting. Marines are also instructed not to overdress, but to dress according to the degree of activity.

"Too much clothing means you sweat and risk dehydration," said Sgt. Kenny Ackerman, a training instructor. "Also, damp clothing causes chills and sickness."

Following survival training, infantrymen receive instruction and practical application on snowshoe walking and the proper uses of the Ahkio sled.

Developed hundreds of years ago by nomad eskimos, today's Ahkio sled is made of fiberglass, wood and canvas. It's used mainly for carrying supplies and evacuating injured men, but it can be used to mount an M-60 machine gun or protect troops from the elements when necessary.

All training done at the center stresses cooperation, the one factor said by military professionals to be the secret of any successful operation. During the winter, the word "cooperation" fails to describe what evolves.

An infantryman adjusts his snowshoes before a training march at the cold weather training center. (Photo by T. Wagstaff)

A Marine sits in a lean-to shelter constructed during cold weather training. (Photo by M. Harris)

"You have to learn to help your buddy out, and help your team out, more so than ever before," said Ackerman. "That's simply what it takes to fight and survive in the mountains. Cooperation makes the job easier and the training more beneficial."

The course culminates with a live-fire exercise above the 10,000 foot level. The three-day exercise lets Marines practice all they've learned under simulated combat conditions. In addition to using snowshoes and the Ahkio sled, Marines practice snow demolition.

"The live-fire exercise is an important part of the training," Ackerman said. "It's hard to win a battle if your combat troops don't know how far a bullet will penetrate frozen snow, or the best way to blow up an enemy fortification of snow and ice."

After a month of battling Mother Nature at her best, most Marines are tired and ready to go home.

"MWTC has dogged me out," said Lance Cpl. Jay Martin, Headquarters and Service Company, 1st Battalion, 9th Marine Regiment. "The worst part of the training has to be getting up in the morning when it's freezing outside and you're warm.

"Sure, the training here is hard, but I don't think you'll hear too many Marines complain," he continued. "I believe we all welcome the opportunity to train here. We do a good job because we have to. How else could we look people in the face when we claim Marines are trained to fight in every clime and place."

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Coast Guard tradition—Page 12

Never tell people how to do things. Tell them what to do and they will surprise you with their ingenuity.

George S. Patton

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